

Claims

We claim:

1. A memory medium which stores program instructions for displaying
5 signals, wherein the program instructions are executable to implement:
receiving first user input requesting display of a first signal;
programmatically analyzing the first signal in response to the first user input;
programmatically determining a display tool operable to display the first signal
based on said analyzing; and
10 displaying the first signal in the display tool.
2. The memory medium of claim 1, wherein the program instructions are
further executable to implement:
displaying a Graphical User Interface (GUI);
15 wherein said receiving first user input comprises receiving said first user input to
the GUI; and
wherein said displaying the first signal in the display tool comprises displaying
the first signal in the GUI.
- 20 3. The memory medium of claim 2, wherein the GUI is comprised in a signal
analysis function development environment.
4. The memory medium of claim 1, wherein the first signal comprises signal
data.
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5. The memory medium of claim 4, wherein the signal data comprise signal
plot data, and wherein the display tool comprises a graph.

6. The memory medium of claim 4, wherein the signal data comprise tabular data, and wherein the display tool comprises a table.

7. The memory medium of claim 4, wherein the display tool comprises an indicator operable to display the signal data.

8. The memory medium of claim 1,
wherein said programmatically analyzing the first signal in response to said first user input comprises:
10 determine a data type of the signal; and
wherein said programmatically determining a display tool operable to display the first signal based on said analyzing comprises:
programmatically determining the display tool based on the determined data type.

15 9. The memory medium of claim 8, wherein said programmatically determining the display tool based on the determined data type comprises:
performing a table look-up based on the determined data type to determine the display tool.

20 10. The memory medium of claim 8, wherein the data type of the signal comprises one or more of:
time-domain;
frequency-domain; and
25 spatial-domain.

11. The memory medium of claim 8, wherein the data type of the signal comprises one or more of:
integer;

floating point;

Boolean.

12. The memory medium of claim 8, wherein the data type of the signal
5 comprises a user-defined data type.

13. The memory medium of claim 12, wherein the display tool comprises a
user-defined display tool.

10 14. The memory medium of claim 8, wherein the program instructions are
further executable to implement:

displaying a default display tool prior to said receiving first user input, wherein
the default display tool is operable to display signals of a default data type;

wherein, said programmatically determining the display tool comprises:

15 if the determined data type is compatible with the default data type,
determining that the default display tool comprises the display
tool; and

if the determined data type is not compatible with the default data type,
determining a replacement display tool operable to display signals
20 of the determined data type; and

replacing the default display tool with the replacement display tool.

15. The memory medium of claim 14, wherein said determining the
replacement display tool comprises creating the replacement display tool.

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16. The memory medium of claim 14, wherein said receiving first user input
requesting display of a first signal comprises:

the user dragging and dropping a signal icon corresponding to the first signal onto
the default display tool.

17. The memory medium of claim 8, wherein the program instructions are further executable to implement:

displaying a first display tool prior to said receiving first user input, wherein the
5 first display tool displays a prior signal of a first data type;

wherein, said programmatically determining the display tool comprises:

if the determined data type is compatible with the first data type,

determining that the first display tool comprises the display tool;

and

10 if the determined data type is not compatible with the default data type,

determining a second display tool operable to display signals of the
determined data type.

18. The memory medium of claim 17, wherein said displaying the first signal
15 in the display tool comprises:

if the determined data type is compatible with the first data type,

displaying the first signal in the first display tool with the prior
signal; and

if the determined data type is not compatible with the first data type,

20 displaying the second display tool; and

displaying the first signal in the second display tool.

19. The memory medium of claim 18, wherein said determining the second
display tool comprises creating the second display tool.

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20. The memory medium of claim 17, wherein said receiving first user input
requesting display of a first signal comprises:

the user dragging and dropping a signal icon corresponding to the first signal onto
the first display tool.

21. The memory medium of claim 8, wherein the program instructions are further executable to implement:

displaying a plurality of display tools prior to said receiving first user input,
5 wherein the plurality of display tools correspond respectively to a plurality of data types,
and wherein each display tool displays one or more respective signals of a respective data
type of the plurality of data types;

wherein, said programmatically determining the display tool comprises:

programmatically determining if the plurality of display tools comprises a
10 matching display tool operable to display signals of a data type compatible with the
determined data type;

if the plurality of display tools comprises a matching display tool,
determining that the matching display tool comprises the display
tool; and

15 if the plurality of display tools does not comprise a matching display tool,
determining a second display tool operable to display signals of the
determined data type, wherein the second display tool comprises the display tool.

22. The memory medium of claim 21, wherein said displaying the first signal
20 in the display tool comprises:

if the plurality of display tools comprises a matching display tool,
displaying the first signal in the matching display tool; and

if the plurality of display tools does not comprise a matching display tool,
displaying the second display tool; and

25 displaying the first signal in the second display tool.

23. The memory medium of claim 1, wherein the program instructions are further executable to implement:

receiving second user input requesting display of a new display tool;

displaying a default display tool in response to the second user input, wherein the default display tool is operable to display signal data of a default data type;
receiving third user input requesting display of a second signal,
programmatically analyzing the second signal in response to said third user input
5 to determine a data type of the second signal; and
if the determined data type of the second signal is compatible with the default data type,
displaying the second signal in the default display tool; and
if the determined data type is not compatible with the default data type,
10 replacing the default display tool with a replacement display tool operable to display the second signal; and
displaying the second signal in the replacement display tool.

15 24. A method for displaying signals, comprising:
receiving first user input requesting display of a first signal;
programmatically analyzing the first signal in response to the first user input;
programmatically determining a display tool operable to display the first signal
based on said analyzing; and
20 displaying the first signal in the display tool.

25 25. A system for displaying signals, comprising:
a processor; and
a memory coupled to the processor, wherein the memory stores program
instructions for specifying a signal analysis function, wherein the program instructions
are executable by a processor to:
receive first user input requesting display of a first signal;
programmatically analyze the first signal in response to the first user input;

programmatically determine a display tool operable to display the first signal based on said analyzing; and
display the first signal in the display tool.

- 5 26. A system for displaying signals, comprising:
 means for receiving first user input requesting display of a first signal;
 means for programmatically analyzing the first signal in response to the first user
input;
 means for programmatically determining a display tool operable to display the
10 first signal based on said analyzing; and
 means for displaying the first signal in the display tool.